

WHAT IS CLAIMED IS:

Sub B2
1. A method for gene analysis comprising the step
of detecting hybridization between a probe nucleic acid
5 and a sample nucleic acid containing a target sequence
that has a sequence complementary to that of the probe
nucleic acid, wherein either the probe nucleic acid or
the sample nucleic acid is immobilized on a substrate,
at least one of the probe nucleic acid and the sample
10 nucleic acid is DNA, and the hybridization is caused in
the presence of a double-stranded DNA-binding protein.

2. The method according to claim 1, wherein the
sample nucleic acid is DNA.

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Sub E2
3. The method according to claim 1, wherein the
double-stranded DNA-binding protein is derived from a
hyperthermophilic bacterium.

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4. The method according to claim 1, wherein the
double-stranded DNA-binding protein is derived from an
archaebacterium.

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5. The method according to claim 1, wherein the
double-stranded DNA-binding protein is derived from a
bacterium belonging to the genus *Sulfolobus*.

6. The method according to claim 1, wherein the double-stranded DNA-binding protein is derived from *Sulfolobus solfataricus*.

5 7. The method according to claim 1, wherein the double-stranded DNA-binding protein is Sso7d protein derived from *Sulfolobus solfataricus*.

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10 8. The method according to claim 1, wherein the double-stranded DNA-binding protein is a protein having homology of 75% or more to the protein represented by the amino acid sequence of SEQ ID NO: 9.

15 9. The method according to claim 1, wherein the sample nucleic acid is labeled.

Sub B4
20 10. The method according to claim 1, wherein amount of the sample nucleic acid containing the target sequence is analyzed based on intensity of hybridization signal.

25 11. The method according to claim 1, wherein detecting hybridization is performed by using a plurality of probe nucleic acids and then polymorphism in the target sequence is detected based on the result of detection of hybridization.

12. The method according to claim 1, wherein
detecting hybridization is performed by using a
plurality of probe nucleic acids and then nucleotide
sequence of the sample nucleic acid is determined based
5 on the result of detection of hybridization.

13. A test kit for detection of hybridization
between a probe nucleic acid and a sample nucleic acid
containing a target sequence that has a sequence
10 complementary to that of the probe nucleic acid, which
comprises at least a double-stranded DNA-binding protein.

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